

**Public Involvement Plan for the Environmental Assessment  
of Ground Water Compliance at the Tuba City, Arizona,  
Uranium Mill Tailings Site**

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**Prepared by  
U.S. Department of Energy  
Albuquerque Operations Office  
Grand Junction Office**

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# **Public Involvement Plan for the Environmental Assessment of Ground Water Compliance at the Tuba City, Arizona, Uranium Mill Tailings Site**

This public participation plan is tiered to the programmatic Uranium Mill Tailings Remedial Action (UMTRA) Ground Water Project Public Participation Plan dated October 1997. This plan is specific to the Tuba City, Arizona, site and details the activities that have been or will be carried out to meet the requirements of the National Environmental Policy Act (NEPA) of 1969 and the Uranium Mill Tailings Radiation Control Act of 1978, as amended.

This plan provides a brief summary of the history of the UMTRA Surface and Ground Water Projects, an explanation of roles and responsibilities filled by the contractor and the U.S. Department of Energy (DOE), and information specific to the Tuba City site.

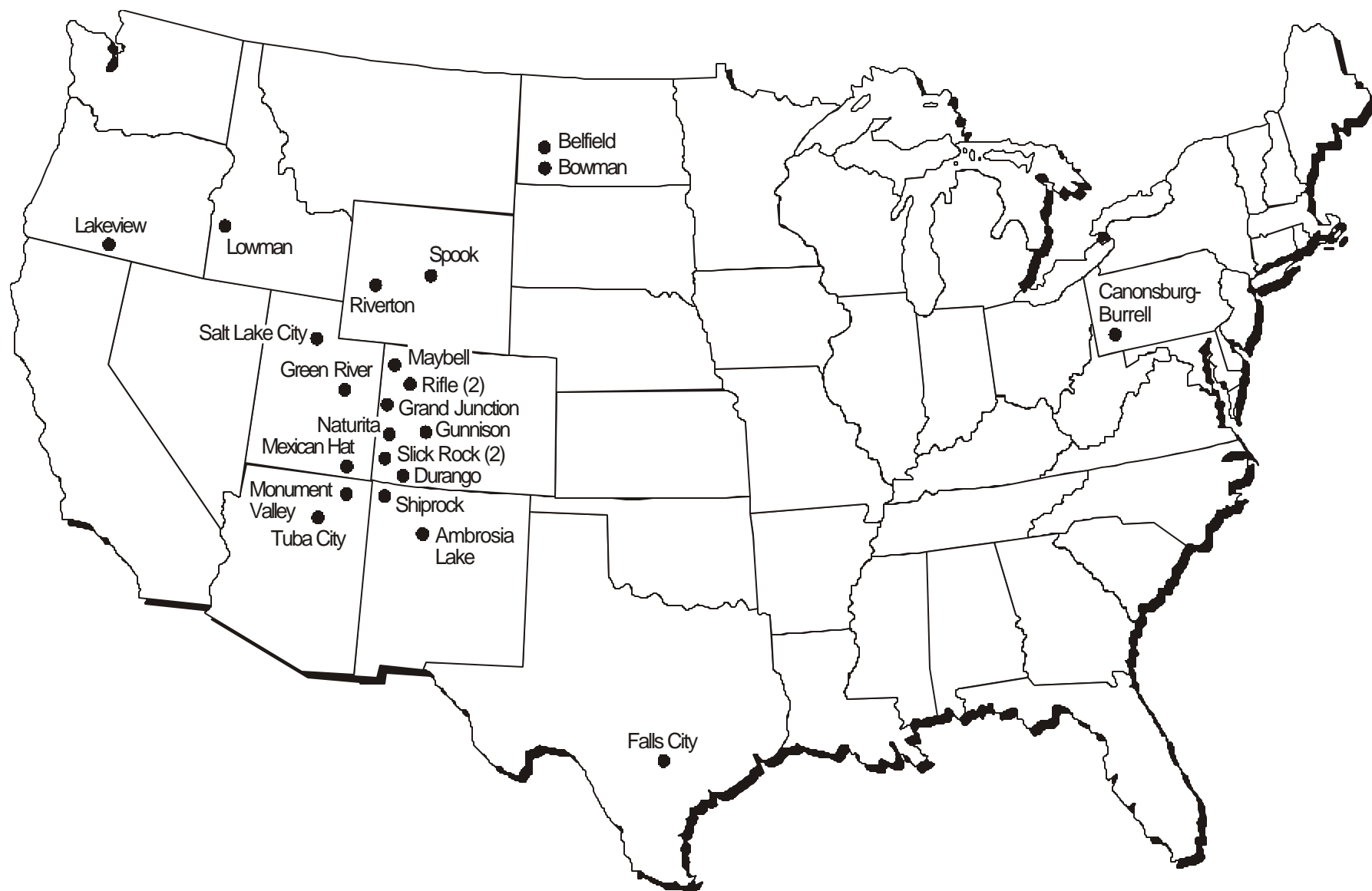
The objectives of this plan are to promote stakeholder awareness, understanding, and participation in the project decision-making processes and to assist in establishing stakeholder involvement and information exchange to promote communications between DOE's Grand Junction Office (DOE-GJO) and affected stakeholders.

## **History**

In 1978, public concern about potential human-health and environmental effects of uranium mill tailings led Congress to pass the Uranium Mill Tailings Radiation Control Act (42 USC 7901 *et. seq.*) In the Uranium Mill Tailings Radiation Control Act, Congress acknowledged the potentially harmful health effects associated with uranium mill tailings and designated 24 inactive uranium-ore processing sites for cleanup (see [Figure 1](#)). These sites are located in 10 states; 23 of the sites are in states west of the Mississippi River. Of those, four sites are on or near Native American-owned lands.

In 1983, the U.S. Environmental Protection Agency (EPA) developed standards to protect the public and the environment from potential radiological and nonradiological hazards associated with processing uranium ore. These standards included exposure limits for surface contamination and proposed compliance options for ground-water contamination. The ground-water standards were made final in 1995. DOE is responsible for bringing ground-water contaminant levels at the 24 sites into compliance with EPA standards. DOE is accomplishing this through the UMTRA Surface Project and the UMTRA Ground Water Project.

Under the UMTRA Surface Project, DOE has been cleaning up surface contamination since 1983. The second phase of the UMTRA Project is to meet ground-water standards at the 24 millsites; thus, the UMTRA Ground Water Project was established in 1991. Project management for the UMTRA Ground Water Project was transferred to DOE-GJO in 1996.



*Figure 1. Locations of the Former Uranium-Ore Processing Sites*

In 1992, DOE initiated preparation of a Programmatic Environmental Impact Statement (PEIS) for the UMTRA Ground Water Project. The PEIS presents analyses of the potential impacts of four alternatives for implementing the UMTRA Ground Water Project: the proposed action, no action, active remediation to background levels, and passive remediation. Nineteen public scoping meetings were conducted between November 1992 and April 1993. Nine public hearings and a 120-day public comment period followed the issuance of the draft PEIS in April 1995. The final was distributed to the public in December 1996.

The Record of Decision issued in April 1997 identified the preferred alternative that will become the programmatic foundation for conducting the UMTRA Ground Water Project at all sites. Under the proposed-action alternative, three ground-water compliance strategies are presented to meet the EPA standards and may be selected for a given site: no remediation, passive remediation with natural flushing and monitoring activities, and active remediation. The DOE may select one strategy or a combination of strategies to meet the EPA standards at a site.

## **Roles and Responsibilities**

In keeping with the objectives of this plan, it is the responsibility of the UMTRA Ground Water Project Manager, the GJO Technical Assistance and Remediation (TAR) contractor's Public Affairs Specialist, and the NEPA document manager to identify the need for, and propose the scope and content of, public informational materials and activities that meet the public participation requirements of NEPA. These individuals are also responsible for developing appropriate plans to establish and maintain communication, identify and resolve issues of concern to stakeholders, support DOE-GJO in the implementation of these plans, and evaluate the success of the communication programs.

## **Site-Specific Information**

The disposal site at Tuba City is located approximately 5 miles east of Tuba City, Arizona, in Coconino County and about 85 miles north of Flagstaff (see [Figure 2](#)). The site is located on land historically disputed between the Hopi Tribe and the Navajo Nation. Mill Tailings, windblown and waterborne contaminant deposits, a demolished mill building, and other tailings-contaminated material totaling 1,400,000 cubic yards were consolidated into a 50-acre, rock-covered disposal cell on site. As a result of the former milling operations at the site, the ground water was contaminated, predominately with nitrate, uranium, molybdenum, selenium, and sulfate. Ground water beneath the site is present in the Navajo Sandstone and is a potential drinking water source for the Navajo Reservation. The stakeholders at this site feel strongly about preserving their limited resources.

The Baseline Risk Assessment, completed in June 1994, was used to determine if contaminated ground water at the Tuba City site poses a potential risk to human health and the environment. The assessment determined that there is no current risk to human health or the environment because contaminated ground water is not presently withdrawn and used. DOE's proposed action of ground water clean up will alleviate future risk associated with ground water usage.

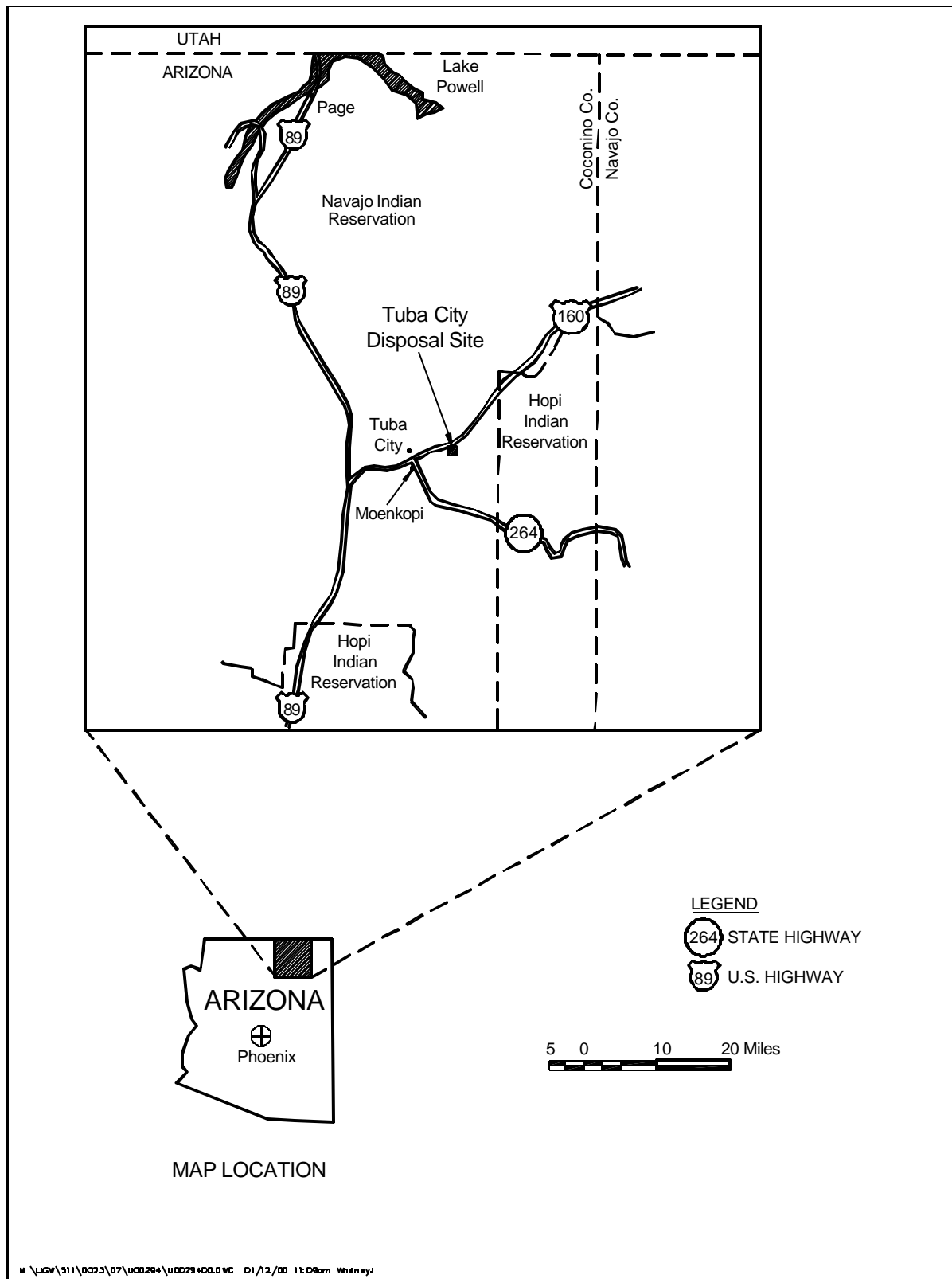


Figure 2. Tuba City Site Map

The Site Observational Work Plan for Tuba City, which was completed in February 1998, characterized the site ground-water conditions and documented how DOE will demonstrate compliance with EPA ground-water standards. To comply with requirements of NEPA, an Environmental Assessment is being prepared and will identify the proposed ground-water compliance strategy.

Cleanup of the ground water will be done with a system that extracts contaminated ground water, treats the extracted ground water, and injects clean water back into the aquifer (i.e., a pump-and-treat system). Implementation of the system is planned to be done in phases. Phase one involves installing a limited number of extraction and injection wells and installing the treatment system for the extracted ground water. DOE plans to use a distillation system to treat the ground water. Phase two will increase the number of ground water extraction and injection wells and increase the treatment system capacity to meet the extraction rate. Phase one is planned to begin in 1999 and Phase two is planned for approximately two years after Phase one begins operation.

### **Public Participation Activities**

Various public participation activities were organized in relation to the Tuba City site. Public comments from the 19 public scoping meetings held in 1992 and 1993 with interested stakeholders were included in the Programmatic Environmental Impact Statement, Volume 2. In September 1996, an UMTRA Ground Water workshop was held and attended by representatives of the Navajo Nation and the Hopi Tribe. Two public scoping meetings are planned for June 1998.

[Table 1](#) provides detailed information on the upcoming public participation activities for the Environmental Assessment at the Tuba City site.

### **Information Contacts**

Request for information should be directed to the DOE UMTRA Ground Water Project Manager listed below. A toll-free hotline, 1-800-399-5618, has been established to provide information and to take public comments. In addition, the DOE-GJO Internet Home Page has information relevant to the UMTRA Ground Water Project. The home page address is <http://www.doegjpo.com>.

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*Table 1. Scheduled Public Participation Activities for the Environmental Assessment (EA) of Ground Water Compliance at the Tuba City, Arizona, Uranium Mill Tailings Site*

Activities	Timing
Hold public scoping meetings with Navajos and Hopis	June 9 and 10, 1998
DOE approval of draft EA	July 24, 1998
Transmit draft EA to tribes	July 28, 1998
Notification of EA availability to stakeholders via <ul style="list-style-type: none"> <li>• News Release</li> <li>• Federal Register notice (not required)</li> </ul>	August 26, 1998
Transmit draft EA to interested to stakeholders, other agencies, public (upon request)	August 28, 1998
Place copies of EA in public locations: <ul style="list-style-type: none"> <li>• Mesa County Library</li> <li>• Flagstaff Public Library</li> <li>• Phoenix Public library</li> <li>• Tuba City Public Library</li> <li>• Navajo Nation Library System</li> <li>• Kykotsmovi Public Library</li> <li>• DOE-GJO Reading Room</li> <li>• Other</li> </ul>	August 28, 1998
Hold Public Meetings	As needed
Comments received from stakeholders	September 25, 1998
Comments addressed by DOE	September 28 – November 4, 1998
News release of Finding of No Significant Impact (FONSI) approval	November 28, 1998
Final EA and FONSI issued to the public, stakeholders and agencies	November 20, 1998
Place copies of the EA in public locations: <ul style="list-style-type: none"> <li>• Mesa County Library</li> <li>• Flagstaff Public Library</li> <li>• Phoenix Public Library</li> <li>• Tuba City Public Library</li> <li>• Navajo Nation Library System</li> <li>• Kykotsmovi Public Library</li> <li>• DOE-GJO Reading Room</li> <li>• Other</li> </ul>	November 20, 1998